

WHAT IS CLAIMED IS:

1. An image processing method for creating bit-map data and attribute information for each pixel corresponding to the bit-map data by expanding a rendering command, said image processing method comprising:

an operation determining step of determining the type of operation to be performed on the attribute information based on logical operation processing specified for the rendering command;

a logical operation processing creating step of creating the logical operation processing for the attribute information based on the determined type of operation;

a logical operation processing step of creating the attribute information by executing the logical operation processing; and

an inversion step of inverting the attribute information when the attribute information possesses an inversion attribute.

2. An image processing method according to claim 1, wherein the attribute information comprises information indicating the attribute and the inversion attribute possessed by the rendering command.

3. An image processing method according to claim 2, wherein each of the attributes and the inversion attribute of the attribute information has one bit.

4. An image processing method according to claim 2, wherein the attribute possessed by the rendering command indicates the type of object.

5. An image processing method according to claim 1, wherein said operation determining step comprises:

an analysis step of analyzing the logical operation processing specified for the rendering command;

a target-attribute operation determining step of determining a target-attribute operation corresponding to the attribute possessed by the rendering command based on a result obtained in said analysis step; and

a non-target-attribute operation determining step of determining a non-target attribute operation corresponding to an attribute other than the attribute possessed by the rendering command based on the target-attribute operation.

6. An image processing method according to claim 5, wherein said target-attribute operation determining step determines the target-attribute operation based on the logical operation processing specified for the rendering

command and color information of a pattern on which the logical operation processing is to be performed.

7. An image processing method according to claim 1, wherein, when the logical operation processing is not specified for the rendering command, said operation determining step determines the type of operation to be performed on the attribute information by assuming that the logical operation processing indicates an overwriting operation.

8. An image processing method according to claim 1, further comprising a source creating step of creating a source and a pattern for the attribute information based on the rendering command, wherein said logical operation processing step executes the logical operation processing based on the source and the pattern for the attribute information.

9. An image processing method according to claim 8, wherein the attribute information created in said logical operation processing step has a result similar to a result obtained by performing the operation determined in said operation determining step on the source for the attribute information.

10. An image processing method according to claim 1, wherein the bit-map data is multi-level bit-map data.

11. An image processing method according to claim 1, further comprising a color processing step of performing color processing for each pixel of the bit-map data expanded from the rendering command based on the attribute information obtained in said inversion step.

12. An image processing apparatus for creating bit-map data and attribute information for each pixel corresponding to the bit-map data by expanding a rendering command, said image processing apparatus comprising:

operation determining means for determining the type of operation to be performed on the attribute information based on logical operation processing specified for the rendering command;

logical operation processing creating means for creating the logical operation processing for the attribute information based on the determined type of operation;

logical operation processing means for creating the attribute information by executing the logical operation processing;

inversion means for inverting the attribute information

when the attribute information possesses an inversion attribute; and

color processing means for performing color processing on the bit-map data based on the attribute information.

13. An image processing system comprising an image processing apparatus and an image forming apparatus connected to each other,

said image processing apparatus comprising:

bit-map creating means for creating bit-map data by expanding a rendering command;

attribute-information creating means for creating attribute information for each pixel corresponding to the bit-map data;

color processing means for performing color processing on the bit-map data based on the attribute information; and

output means for outputting the color-processed bit-map data to said image forming apparatus,

said attribute-information creating means comprising:

operation determining means for determining the type of operation to be performed on the attribute information based on logical operation processing specified for the rendering command;

logical operation processing creating means  
for creating the logical operation processing for the  
attribute information based on the determined type of  
operation;

logical operation processing means for  
creating the attribute information by executing the logical  
operation processing; and

inversion means for inverting the attribute  
information when the attribute information possesses an  
inversion attribute.

14. A control program for performing image processing  
for creating bit-map data and attribute information for each  
pixel corresponding to the bit-map data by expanding a  
rendering command, said control program comprising:

an operation determining step code for determining the  
type of operation to be performed on the attribute  
information based on logical operation processing specified  
for the rendering command;

a logical operation processing creating step code for  
creating the logical operation processing for the attribute  
information based on the determined type of operation;

a logical operation processing step code for creating  
the attribute information by executing the logical operation  
processing; and

